

### Remarks

This is in response to the final Office Action mailed September 6, 2007. An Advisory action is respectfully requested. Claims 1-5 and 7-23 are pending. Reconsideration and allowance are respectfully requested in view of the following remarks.

Claims 1-5 and 7-22 were rejected as being unpatentable over Baumgart et al. The Office Action states that the reference teaches paint for plastic or metallic materials comprising the claimed materials. The Office Action also states that it is the Examiner's position that waxes are inherently dispersed in a solvent. In addition, the Office Action states that the concentrations would have been obvious to one of ordinary skill in the art to optimize the result-effective variables. Further, it is the Examiner's position that the cross-linking involved in the curing of Baumgart is the result of exposure to the UV radiation and that exposure to thermal radiation is part of the curing process, does not contribute to cross-linking. Applicants respectfully disagree and traverse the rejection.

Claim 1 recites a paint for plastic or metallic materials comprising one or more acrylic-based resins crosslinkable solely by exposure to ultraviolet radiation. Claim 1 further recites one or more photo-initiators as sources of free radicals present in an amount ranging between 0.5 wt% and 5.0 wt%, to induce cross-linking of said acrylic resin in the presence of UV radiation, one or more fillers, a dispersion of waxes in solvents for orienting said fillers, and levelling additives; wherein said acrylic-based resin comprises a urethane-acrylate oligomer in a weight percentage of between 30 wt% and 60 wt%.

Applicants assert that claim 1 patentably distinguishes over Baumgart et al. or any other prior art or combination thereof. Baumgart repetitively emphasizes that the disclosed coatings are curable thermally **and** with actinic radiation. In fact, Baumgart requires isocyanate-reactive functional groups in the coating components, --the isocyanate-reactive groups being thermally reactive. In particular, Baumgart teaches a coating which is curable thermally and with actinic radiation, comprising (A) at least one binder containing isocyanate-reactive functional groups and (B) a crosslinking component comprising (i) free and/or blocked isocyanate groups and (ii) reactive functional groups containing at least one bond which can be activated with actinic

radiation. Consequently, Baumgart does not teach a paint including an acrylic-based resin crosslinkable solely by exposure to UV radiation.

Furthermore, the office misleadingly characterizes Baumgart's teaching of "curing" by suggesting that only thermal curing is "curing" while curing with actinic radiation is "cross-linking." The differentiation asserted by the Examiner is not found in Baumgart and is otherwise unexplained and unsupported. Furthermore, this does not change the teachings in Baumgart requiring coating materials that are reactive both thermally and with actinic radiation.

Conversely, the present invention describes a paint with one or more acrylic-based resins that are cross-linkable exclusively by exposure to UV radiation. This is a fundamental difference of the present invention as compared to the prior art. Moreover, the processes for cross-linking according to the present invention provide advantages over the prior art. The present invention allows for use of raw materials currently available on the market which has yielded unexpected results by obtaining a pigmented UV single-coat finishing product with excellent mechanical and chemical resistance. With just a single coat, excellent aesthetic and mechanical properties are achieved. This is opposed to known multi-coat systems, wherein aesthetic functions may be applied with one coat but additional coats are required to provide chemical and mechanical protection.

The present invention also overcomes problems related to submission to high thermal stress found with other systems, including Baumgart. Moreover, the flash off period of the present invention is conducted at only 40-60 degrees Celsius in just a few minutes with immediate UV cross-linking. After such exposure, there is no further stress to the coating. Conversely, the Baumgart patent requires a process after application including a long flash off period, cross-linking with actinic radiation and post baking in an oven for a further period of time. This is a much more complicated and expensive process and places more stress on the coating materials.

The Office Action also states that the relative percentages would be obvious and could be easily optimized as there are no unexpected results. Applicant respectfully asserts that the present invention does provide surprising results and advantages over the prior art. The choice and type and relative percentage of photo initiators is used with commercially available

pigments, which absorb a portion of the energy in the same range as the photo initiators and diminish the efficiency of cross linking. The present invention provides more than a satisfactory degree of cross linking at both in-depth and on the surface of the paint. The present invention also obtains good wettability without the use of wetting additives, which was unexpected and provides non-obvious advantages over the prior art.

Applicants assert that claim 1 provides non-obvious advantages over Baumgart and any other prior art or combination thereof. Applicant further asserts that the claims depending therefrom are also allowable for at least the same reasons as well as other advantages. Applicants request that the rejection under 35 U.S.C. § 103(a) be withdrawn.

Applicants thank the Examiner for the indication of allowable subject matter. Claim 23 has been designated allowable.

The remarks set forth above provide certain arguments in support of the patentability of the pending claims. There may be other reasons that the pending claims are patentably distinct over the cited references, and the right to raise any such other reasons or arguments in the future is expressly reserved.

Favorable reconsideration in the form of a Notice of Allowance is respectfully requested. If there are any questions regarding this matter, please call the undersigned attorney at 612.332.5300.

Respectfully submitted,  
MERCHANT & GOULD P.C.  
P.O. Box 2903  
Minneapolis, Minnesota 55402-0903  
(612) 332-5300

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/Anne M. Murphy/  
By: Anne M. Murphy  
Reg. No. 54,327  
AMM:pll